epiTRENDS

A Monthly Bulletin on Epidemiology and Public Health Practice in Washington State

Vol. 13 No. 4

04.08

Summer Travel

Summer vacation brings Washington residents opportunities to travel around the globe. However, proper planning and preparation can help achieve safe travel, particularly for international destinations.

Outbreaks in 2008

Two prominent vector-borne illness outbreaks are occurring in South America during spring 2008. Other vectorborne illnesses are also related to travel.

Aedes aegypti **mosquito. Image courtesy of CDC.**
Content: Prof. Frank Hadley Collins.
Photo: James Gathany

Dengue fever is a chronic problem in Rio de Janeiro, Brazil. The causative virus is transmitted by *Aedes aegypti* mosquitoes. The current dengue outbreak in the city resulted in emergency measures being announced on March 27, 2008. By then there were 43,000 cases with 54 deaths reported, which is already more than double the cases reported during the entire previous year. Children make up more than half the fatalities. The local health care system is struggling to cope with the numbers of patients seeking care. Prevention addresses mosquito control because there is no vaccine available.

Yellow fever from jungle or forest exposures (sylvatic yellow fever) is also being reported from South America. During February 2008, Paraguay detected yellow fever for the first time in 34 years. There were 24 cases and eight deaths reported by mid-March. World Health Organization (WHO) is assisting Paraguay with its response to this outbreak. As of March 13, 2008, 38 confirmed cases of yellow fever were reported in Brazil, including 20 deaths. In addition, Argentina confirmed 3 cases during March.

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The cases are all sylvatic yellow fever where transmission occurs from monkeys to humans through a mosquito vector. Sylvatic yellow fever cases are therefore relatively rare. If yellow fever is introduced into cities, transmission from person to person results in urban yellow fever with potential for rapid spread in susceptible populations.

Travelers to "areas of risk" for yellow fever, which would be outside cities, should be vaccinated ten days before going to such areas. Brazil, Paraguay, and other countries require proof of yellow fever vaccination for persons entering from countries listed as endemic for yellow fever. Consult the CDC travel website or other source of travelers' information for the most up-to-date recommendations. Note that yellow fever vaccine can have adverse events. The risks and benefits of the vaccine should be considered for those at increased risk of adverse events, including infants less than 9 months of age, persons over 60 years of age, women who are pregnant, and immunocompromised persons.

In 2007 a chikungunya outbreak resulted in 204 confirmed cases in the Emilia-Romagna region in north eastern Italy. A new mosquito vector *Aedes albopictus* was identified for this virus. It is assumed an infected traveler was bitten by a mosquito in Italy, introducing the virus to the area. Cases ended last September when colder weather arrived in Italy. Chikungunya infection causes fever, chills, rash and severe symmetrical polyarthropathies, typically in the knees, ankles, and small joints of the extremities.

By April 2008, Arizona, Tennessee and Mississippi had reported their first human cases of West Nile virus (WNV) infection for 2008. In addition, Alabama reported a WNV infected horse and California detected WNV-infected birds and sentinels flocks.

Other infections can be spread by mosquitoes including malaria and Japanese encephalitis. CDC's travel website can provide information about endemic areas for these agents:

http://wwwn.cdc.gov/travel/default.aspx

Travelers who will be in risk areas for mosquito-borne infections should obtain appropriate vaccination and follow mosquito prevention measures including wearing long sleeved clothing, applying repellents, and using a bed net.

Fishing in rice paddy irrigation ditch, north central Thailand
Area of Japanese encephalitis endemicity
Photo: Deborah Todd

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http://listserv.wa.gov/archives/epitrends.html

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Other Risks During Travel

Although legionellosis cases and outbreaks are a rare outcome of travel exposures, such outbreaks are difficult to identify. Travelers infected while on cruise ship or hotel may be in another location when they develop symptoms a week or ten days later, making it difficult to identify an ongoing risk to others. CDC has requested reporting of all legionellosis cases with out-of-state travel during the 2 to 14 days prior to onset. Provide a timely report in PHIMS including demographics, symptoms and signs, lab results, and detailed travel information (destinations and lodging sites with dates of arrival and departure). In addition, travel-related cases should have isolates (when available) forwarded to CDC through Washington State Department of Health Public Health Laboratories.

Hepatitis A remains a risk for susceptible persons traveling to countries with high and intermediate endemicity. Recommended pre-exposure prophylaxis depends on the age and health status of the traveler. Current recommendations for hepatitis A vaccine are to vaccinate travelers:

- age 12 months through 40 years – one dose vaccine
- age over 40 years or immunocompromised, chronic liver disease, other chronic medical condition – one dose vaccine AND if departing within two weeks – immune globulin dosed for weight
- age under 12 months, unable to receive vaccine – immune globulin dosed for weight

Travelers can also bring infectious agents into the United States. On April 8th, Public Health – Seattle and King County issued an alert regarding a confirmed case of measles in a traveler from Netherlands who had a stopover at SeaTac International Airport on March 26th while contagious. Passengers seated near the case patient on the flight are being contacted. Others at risk are those in the concourse area or on a subsequent flight to Portland.

Child with measles, 1963. Image courtesy of CDC

During March and April, 2008, Arizona experienced an outbreak of measles associated with an imported case from Switzerland. The visitor had rash onset February 12, 2008 and was hospitalized with measles and pneumonia. According to CDC, this hospital admission prompted verification of the measles immune status of approximately 1800 healthcare personnel and vaccination of those without evidence of immunity. Through March 31, 2008, nine confirmed cases had been reported. Eight of the nine were infected in healthcare settings. All cases were unvaccinated. Then, in the first week of April a tenth case was identified. No link to the previous cases could be found, leading to a concern that spread of measles in the wider community is occurring.

Also in early April, 2008, four cases of measles were diagnosed in Wisconsin residents, the first in the state since 2005. The first two had an unknown source, though one had contact will an ill visitor from China, and the two additional cases occurred in children attending the same day care center as one of the cases. By mid-April, three new cases of measles had been reported in southeastern Wisconsin, raising the total to seven during one month.

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At the beginning of the year, 11 cases of measles occurred in San Diego. The index case had been exposed in Switzerland, where an outbreak is currently underway. Austria has also recently reported measles activity. Other cases in the United States this year have been related to a measles outbreak in Israel. The risk of measles is also increased for persons traveling to Japan. Between 1 January and 27 February 2008, a total of 2638 cases were reported from 42 prefectures out of a total 47.

Travelers should be up-to-date for all routine vaccinations as well as specific vaccinations for travel destinations. Other preventive measures may also be appropriate. Vaccine recommendations and other travel information are available at the CDC travel site.

Web Resources

CDC travel site: http://wwwn.cdc.gov/travel/default.aspx

WHO international travel site: http://www.who.int/ith/en/index.html

Chikungunya: www.cdc.gov/ncidod/dvbid/Chikungunya/index.html

SeaTac measles alert: http://www.metrokc.gov/health/news/08040802.htm

General measles alert: http://www2a.cdc.gov/HAN/ArchiveSys/ViewMsgV.asp?AlertNum=00273